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New and Noteworthy Malesian Myrsinaceae, VI. *Scherantha*, a New Subgenus of *Ardisia*[1]

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ABSTRACT: Eight species originally described in *Ardisia* Sw., plus a ninth species newly described here, are grouped together to compose a new subgenus, *Scherantha*, within the genus *Ardisia*. A key to the species, illustrations, descriptions, and a distribution map of the taxa are provided. The question of generic limits and the characterization of *Ardisia*, *Tapeinosperma*, and *Discocalyx* are addressed.

SIXTY-NINE SPECIES of *Ardisia* Sw. were attributed to the Philippines by Merrill (1923). In anticipation of a new treatment of the family for the Flora of the Philippines Project, and in the context of a broad revision of the Malesian Myrsinaceae (Stone 1982, 1988*a*,*b*, 1989*a*,*b*, 1990, 1991*a*,*b*, 1992*a*,*b*,*c*), the genera are being critically examined. Since the last revision of the family (Mez 1902), there has not been a rigorous, worldwide review of genera and generic limits. Although in many cases the genera accepted by Mez and by most subsequent botanists are well defined and unequivocal (e.g., *Aegiceras*, *Maesa*), several others have been remodeled or subdivided, or united with other genera, or simply regarded as more or less ambiguous. Examples of these controversial cases include the trio of genera *Myrsine*, *Rapanea*, and *Suttonia*; the pair *Embelia* and *Grenacheria*; the pair *Discocalyx* and *Tapeinosperma*; and a considerable number of genera, all South and Central American, split off from *Ardisia* by Lundell, in several contributions (1963, 1964, 1981, 1982, 1983). The criteria established or used by Mez for the discrimination of genera and other higher taxa have in some cases broken down with later discoveries. New characterizations and interpretations of genera are therefore desirable. There have been several in recent years (e.g., the reduction of *Afrardisia* to *Ardisia* [Taton 1979]; remodeling of several American groups by Pipoly [1987]; proposal of new genera *Emblemantha* and *Systellantha* (Stone 1988*a*, 1992*b*); and new criteria to discriminate *Discocalyx* and *Tapeinosperma*, among other genera, by Sleumer [1988]). Much more work remains to be done, however. The present paper is a contribution to greater precision in discrimination of generic and subgeneric groups.

Herein, eight species originally placed in *Ardisia* either as members of subgenus *Tinus*, or without indication, are removed from that subgenus and, along with a new species, are grouped together in a new taxon, *Scherantha*, ranked as a subgenus of *Ardisia*. *Scherantha* is limited to the Philippines and is evidently endemic. *Ardisia* is richly speciose in Malesia, particularly in West Malesia.

Discrimination of Genera in Myrsinaceae, with Particular Reference to Ardisia, Discocalyx, *and* Tapeinosperma

Mez originally (1902) placed these genera in two different tribes (*Ardisia* in Ardisieae, the other two in Myrsineae), suggesting differences of a rather fundamental kind. The basis for this, at least as shown in Mez's key to genera, is primarily the number of ovules.

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Unfortunately, ovular number, even in those species of *Ardisia* that were already known to Mez, varied widely and this character is not by itself an impassable barrier. In *Ardisia*, the placenta may bear as few as five ovules in some species and as many as 100 ovules in others. In *Discocalyx* and *Tapeinosperma*, the ovular number is typically less than 10, usually five or sometimes less. Ovular number therefore is not a sufficient character to distinguish the two genera. A second character of importance is the nature of the stigma. In *Ardisia* the stigma is not differentiated in size or shape, and the style tapers to a point. In *Discocalyx* and *Tapeinosperma* (and other genera) the stigma forms a more or less distinct head on the style, or at least the style has a clearly truncate tip. In conjunction with ovule number, this character helps to distinguish both *Tapeinosperma* and *Discocalyx* from *Ardisia*.

Some other features of *Discocalyx* and *Tapeinosperma* deserve mention, although their universal presence remains to be confirmed. Inflorescences in at least several species of these two genera are generated on specialized lateral branches with scale leaves; such branches develop flowers over a period of time, perhaps over more than one season, leaving enlarged, scar-bearing zones below the current flower production. This type of fertile branch is not seen in the members of *Scherantha* described here. Inflorescences of this kind also occur in other genera (e.g., *Loheria*).

The distinction of *Discocalyx* from *Tapeinosperma* has been discussed by Sleumer (1988). The latter genus has never been reported from the Philippines; both genera occur in New Guinea. Merrill (1923) reported 30 species of *Discocalyx* from the Philippines, all but one of them endemic (and that one, *D. cybianthoides* Mez, is found outside the Philippines only locally in Sabah, northern Borneo).

The species here grouped to form *Ardisia* subg. *Scherantha* are peculiar in several respects. First, they all have a truncate stigma, which may be extremely slightly discoid, but not really capitate. Second, several (not all) of the species have locellate anthers. Third, they have inflorescences that are lateral, pedunculate, simple or bipinnate, and racemose; in position resembling those in species of subg. *Tinus* but unlike them in the racemose pattern. Fourth, the ovular number is in most species very low, five or less (but 9–12 in one species). These characters come very near to suggesting a difference of generic rank from other *Ardisia* species, but have to be considered in relation to the following facts. As regards the stigma, the *Scherantha* species are consistent, but the character is weak and, among the hundreds of *Ardisia* species (including those of tropical America), may reappear; it has not been possible to examine all species in this respect.

Concerning the locellate anthers, these occur also in *Ardisia elliptica* Thunb., *A. crassa* C. B. Clarke, and a few others, so there is no unambiguous contrast here. Lateral inflorescences occur of course in *Ardisia* subg. *Tinus*, subg. *Pimelandra*, and others, and racemose inflorescences are already known in several species in more than one subgenus. Low ovular number is the usual case in *Ardisia* subg. *Crispardisia*. Thus, individually, these characters are not unknown in other *Ardisia* species; their combination in the species here grouped as subg. *Scherantha* seems to be diagnostic, but it is probably unwarranted to conclude that this group is a separate genus. In a family with some genera very strongly demarcated (*Maesa*, *Embelia*, *Aegiceras*) and others weak or controversial (*Grenacheria*, *Discocalyx*), it is perhaps best to opt for larger, well-distinguished taxa.

MATERIALS AND METHODS

The following herbaria (abbreviations conform to those used in the Index Herbariorum, Part I, The Herbaria of the World, ed. 6, 1974) provided specimens and in several cases hospitality: A, BISH, BM, K, L, P, PH, PNH, US, SING, WRSL. These institutions and their curators are thanked cordially for access to the materials in their care.

Paucity of material tended to inhibit dissections but these were made of flowering specimens whenever feasible. Measurements given are based on dry material for stems and leaves, and on revived (boiled) material for flowers.

It was noted that measurements of floral organs in the revived state were about 25% larger than those in the dry state. All illustrations are based upon revived material, and the drawings were made with the aid of a camera lucida. For a discussion of the conventions used in depicting flower structure, see Stone (1989*a*).

The destruction of the old Manila herbarium in World War II effectively removed the possibility of studying many holotypes of Philippine plants, but in a number of cases isotypes have been found in other herbaria thanks to Merrill's liberal policy of distribution. One might possibly have expected a full set of isotypes at the U.S. National Herbarium, but this is not the case; however, six of the species mentioned herein are represented by isotypes, and one historic holotype was encountered.

The nine species that form subg. *Scherantha* are rather homogeneous in most respects, but there are two internal anomalies: one, in anther structure, distinguishes five species with locellate anthers from four with undivided anthers; and the second involves eight species that have pauciovulate placentas (ovules five or fewer) and one species that has mostly 9–12 ovules. Inflorescence structure is nearly uniform, although one species has simply pinnate racemes, and the other eight show bipinnate racemose panicles. Eight species show clear, if minimal, sepal imbrication; one species appears to lack such imbrication. In general, the inflorescences in *Scherantha* resemble those of *Ardisia* more than they do those in most species of *Discocalyx* or *Tapeinosperma*. Trichomes, connective glands, leaf glands, petiole form, and leaf venation are all basically similar in these species. All, moreover, have corolla lobes lacking internal papillae (a character frequent, if not universal, in *Ardisia*).

Mez (1920) suggested a place for these species in *Ardisia* subg. *Tinus* Mez. That subgenus is well supplied with species having racemose inflorescences borne in the axils, although the type species (*A. elliptica*) as well as others have umbelliform inflorescences. Mez either did not perceive, or was prepared to devalue, the characters of ovular number, stigmatic form, and anther structure, in these nine species. Even were these species to be retained in subg. *Tinus* they would form a distinctive group. They cannot be logically placed in any other existing subgenus (for a review of the subgenera of *Ardisia*, see Stone [1989*a*]). Although locellate anthers are found in some undoubted species of *Ardisia* (the best known being *A. elliptica*), as well as characterizing the genus *Aegiceras*, their occurrence in five of the these nine species is remarkable. The stigmatic form (more or less clearly, if minutely, truncate or subcapitate), and the small or very small number of ovules per placenta, however, are the features that make inclusion of these nine species in *Ardisia* somewhat controversial. Their presence, on the other hand, is fully compatible with the diagnoses of either *Discocalyx* or *Tapeinosperma*. Nevertheless, features such as anther shape, filament length, and (in *Discocalyx*) floral sexuality appear to inhibit the placement of the *Scherantha* species in either of the latter two genera.

Locellate Anthers

The occurrence of locellate anthers deserves some further discussion. In those species of Myrsinaceae that show the character, the thecae of the anther are divided transversely by partitions, which (in the nine species of *Scherantha*) may be 3 to 9 per theca, resulting in 4 to 10 chambers or locelli. Such septation or partitioning is generally quite noticeable even before dehiscence, because the anthers appear to be lobulate. However, verification of the character is desirable, because sometimes a lobulate appearance is conferred by shrinkage around the large internal glands that usually form two rows along the connective. In dry material these are often bulging. It is necessary to slice open an anther to observe the partitions and the discrete masses of pollen in each locellus.

To what extent this character is invariable cannot yet be stated. There is indeed variation in the number of locelli per anther, and this seems in the limited material available to have

a possible correlation to species. However, the mere occurrence of locelli is not a diagnostic character of *Scherantha* nor of other genera of Myrsinaceae, to my knowledge, because even *Aegiceras* must be further distinguished by other characters (e.g., fruit shape) to demarcate it adequately. Mez apparently knew of locellate anthers in only one species of *Ardisia*, which he called "*A. humilis*" but is correctly named *Ardisia elliptica* Thunb. (The true *A. humilis* Vahl is synonymous with *A. racemosa* (Lour.) Mez and has undivided anthers.) However, locellate anthers are now known definitely to occur in *Ardisia lamponga* Miq. and *A. crassa* Clarke, and very likely may turn up in other species of the genus. The functional or adaptive aspects of this character have not yet been investigated.

SYSTEMATIC TREATMENT

Genus ARDISIA Swartz

Subgenus SCHERANTHA B. C. Stone, n. subg.

Inflorescentia lateralis, pedunculata, racemosa, simplicia vel bipinnata. Flores racemose dispositi, parvi, in alabastro ovoideo vel subgloboso; corollae lobis intus plerumque glabris; calycis lobis non- vel minime imbricatis; antheris subacuminatis, breviter filamentatis, thecis sueto locellatis vel nonseptatis; ovario immerso-glanduloso, stylo lineare incluso, haud porrecto; stigmate minutissime discoideo-capitiforme pallido truncato; placenta parva, ovulis 5 vel paucioribus, vel circiter 9–12. Folia minutissime lepidotula, glandulosa, glandulis sueto marginem versus parce crebrioribus leviter pustulatis. Bracteas caduceas vel rariter subpersistentes.

Inflorescence lateral, pedunculate, racemose, simple or bipinnate. Flowers racemosely disposed, small, in bud ovoid or subglobose; corolla lobes inside usually glabrous; calyx lobes not or scarcely imbricate; anthers subacuminate, filaments short, thecae with or without partitions; ovary with sunken glands, style linear, not extruded, nor porrect; stigma pale, truncate to minutely discoid; placenta small, with 5 or fewer ovules, or rarely up to 12 ovules. Leaves very minutely lepidote, glandular, with the glands often slightly more crowded and a little convex near the margins. Bracts caducous or rarely shortly persistent. (Gk. *scheros*, successive; *anthos*, flower). Type species: *Ardisia loheri* Merr.

This well-marked subgenus consists of nine species endemic to the Philippines; all were first described in *Ardisia*. Most are underrepresented in herbaria and some are still known only from the first collection; the best known are vouchered by about a dozen specimens. For several species the fruits are still unknown. In general, variation is insufficiently documented.

Corolla color is white or pink, as is true of many Myrsinaceae. In five species, the anthers are locellate. It is suggested that the number of locelli per theca may be a stable character; some species show as few as 4, others as many as 10 locelli per theca. There seem to be three states: 4–5-locellate; 6-locellate; and 8–10-locellate. In one species, however, there are apparently imperfectly septate or nonlocellate anthers in some flowers and distinctly locellate anthers in other flowers. It is not clear whether dehiscence of the anther is gradual or abrupt, but in herbarium specimens dehisced anthers with all locelli exposed are to be found. Pollen from both locellate and nonlocellate anthers is similar in being uniform in size, consisting of free grains. Pollination in these species has not been observed. Collectors have noted in a few cases that the flowers are scented (hence Elmer's specific epithet "*fragrans*"). Perhaps the pollen vectors are small insects sensitive to the sweetish odor. In contrast to many species of *Ardisia*, these nine species consistently lack papillae on the interior faces of the corolla lobes.

In all nine species the leaves are similar in venation and in the dispersion of internal glands, although in some species the veins are more strongly evident, in others faint or obscure. The midrib is always prominent beneath and impressed above; the ventral face of the petiole at the junction with the blade is sometimes flat, rather than (as is more usual

in many *Ardisia* species) channeled. All species show on the lower surface of the leaf blades extremely minute dotlike appressed scales, usually in a pit or depression. In some species, the leaf undersurface is pale or subglaucous.

The innovations are at least temporarily minutely tomentellous, but the mature parts (except the inflorescences) are soon glabrate. The inflorescence axes, calyces, and bracts are more or less minutely tomentellous, but the corolla, stamens, and ovary are always glabrous. The trichomes are ferrugineous, glandular, with the terminal cell either solitary or in many cases didymous or forked, or further divided into radiating arms. The stalk is either a single cell or consists of a few stacked translucent cells. In *A. ilocana* Merr. the hairs are longer and more diverse than in the other species.

All species are in habit small arborescent plants, rarely over 4 m tall. Ecologically, all the species appear to be confined to intact or but lightly disturbed habitats. None have been reported at altitudes above 2000 m, but most species frequent altitudes between 500 and 1700 m. One species is noted to occur at "low altitudes."

KEY TO SPECIES OF SUBGENUS *Scherantha*

1a. Anthers distinctly locellate, each theca divided by septa into 4–10 pollen chambers ... 2
1b. Anthers nonlocellate, the thecae without distinct septa 6
2a. Ovules about 9–12 in 2 rows on the placenta; anther with about 5 or 6 locelli ..... *A. racemoso-panniculata* Mez
2b. Ovules 3–5 (rarely 2 or 1) in one row on the placenta; anther with about 8–10 locelli, except in *A. fragrans* with 4 locelli 3
3a. Sepals 1.75 mm long; flowers about 4–4.5 mm; ovules 3; petioles 15–20 mm long; inflorescence bracts 4–20 mm long, conspicuous; leaves narrowly elliptic, acuminate, 5 times longer than wide ..... *A. samarensis* Merr.
3b. Sepals 1–1.5 mm long; flowers about 3–3.5 mm long; ovules 2–5; petioles up to 17 mm long (to 30 mm in *A. loheri*); leaves mostly 3–4 times longer than wide 4
4a. Sepal margins ciliolate with septate (2–8-celled) gland-tipped hairs 0.1–0.125 mm long; sepal and petal glands rather abundant; ovules 5; leaf venation somewhat faint; anthers sometimes only partly or obscurely locellate ..... *A. ilocana* Merr.
4b. Sepal margins ciliolate with shorter (0.05 mm) 1–2-celled hairs; sepal and petal glands few, black to brown; ovules 1–4; leaf venation faint to evident; anthers all locellate 5
5a. Petioles mostly 15–30 mm long; anthers with 8-locellate thecae; panicles to 18 cm long; leaf blades 18–22 by 3.5–6 cm; ovules 4 ..... *A. loheri* Merr.
5b. Petioles to 10–12 mm long; anthers with 4-locellate thecae; panicles ca. 10 cm long; blades 10 cm long (or more), 3 cm wide (or more); ovules 1–4 ..... *A. fragrans* Elm.
6a. Sepals 1.6–2 mm long; flowers ca. 4 mm long; petioles ca. 20 mm long; leaves rather large (10–20 cm long), oblong-obovate; ovules 5 ..... *A. mezii* Elm.
6b. Sepals ca. 1 mm long; flowers ca. 3–4 mm long; petioles 10–15 mm long; leaves smaller (8–15 cm long); ovules 3–5 7
7a. Sepals and petals mostly conspicuously glandular (black) dotted; leaves mostly obovate and subcaudate ..... *A. nigro-maculata* Merr.
7b. Sepals and petals with few to several rather small, usually reddish brown glands; leaves tending to be elliptic-oblong 8
8a. Inflorescences bipinnate; petioles 7–12 mm long; ovules 2 or 3; lateral veins 8–10 pairs; blades to 15 cm long, 4.5 cm wide ..... *A. elmeri* Mez
8b. Inflorescences simple racemose; petioles 1–3 mm long; ovules 4–6; lateral veins about 15 pairs; blades to 8 by 3 cm ..... *A. stichantha* B. C. Stone, n. sp.

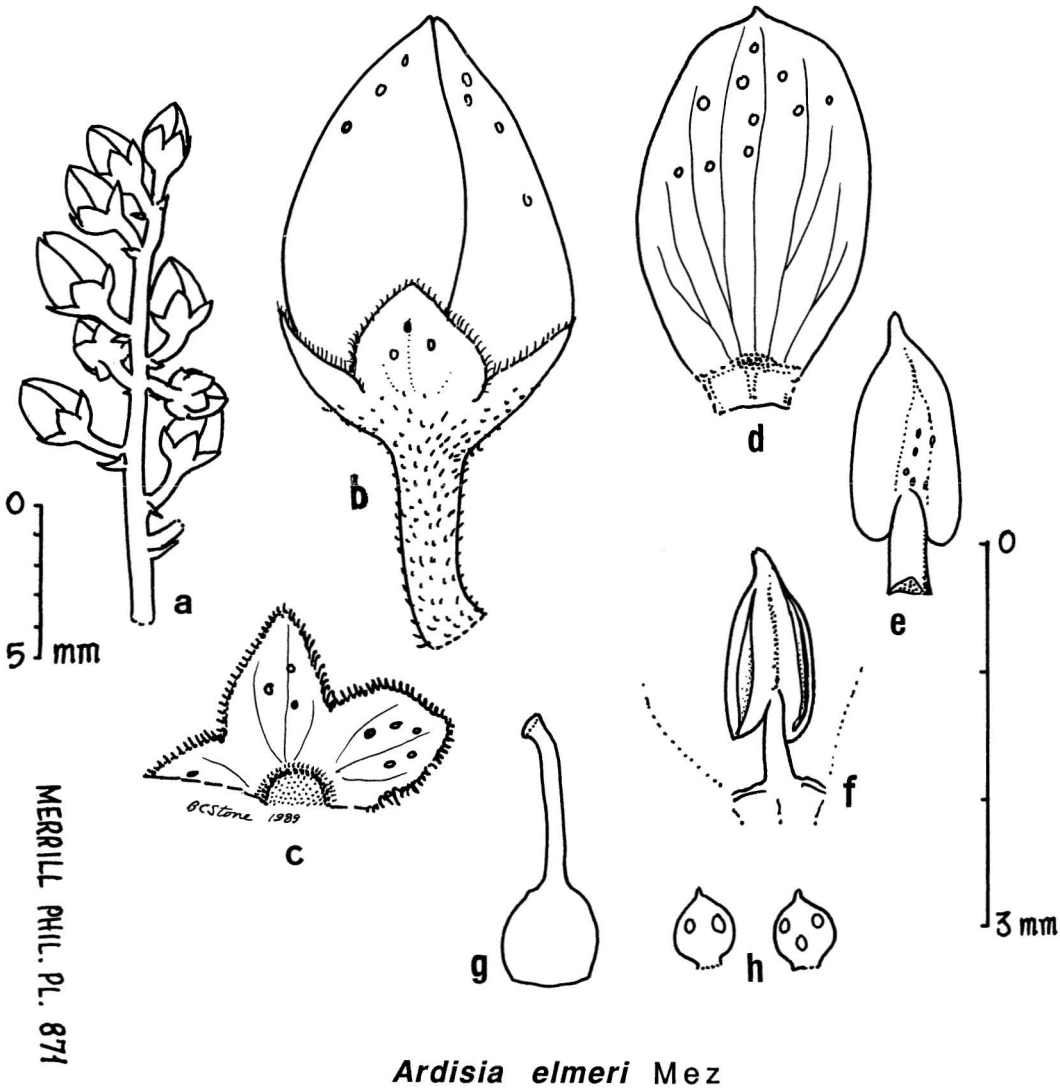


FIGURE 1. *Ardisia elmeri* Mez. a, Racemose branch of a panicle (distal part); b, flower in profile; c, part of calyx; d, corolla lobe, interior; e, stamen, dorsal view; f, stamen, ventral view; g, ovary with style; h, two views of placenta (ovules 3 or 4). (From Merrill, Philipp. Pl. 871.)

ENUMERATION OF SPECIES

1. ***Ardisia elmeri*** Mez
Figure 1

Philipp. J. Sci. 1 (1906*a*) Suppl., 273; Mez, Feddes, Repert. Specierum Nov. Regni Veg. 3 (1906*b*), 100; Merrill, Enum. Philipp. Fl. Pl. 3 (1923), 258.—Type: *Elmer 6493* (holotype not extant; US, lectotype). Note: lectotypes cited herein are selected here.

Ardisia geissanthoides Mez, Feddes, Repert. Specierum Nov. Regni Veg. 16 (1920), 412; Merrill, Enum. Philipp. Fl. Pl. 3 (1923), 258.—Type: *Merrill 4444* (K, lectotype).

Ardisia glauca Mez, Feddes, Repert. Specierum Nov. Regni Veg. 16 (1920), 412; Merrill, Enum. Philipp. Fl. Pl. 3 (1923), 258.—Type: *Merrill 6138* (US, lectotype).

Shrub or small tree to ca. 3 m tall, with thickish, sometimes rather twisted branches; innovations subglabrous or extremely minutely ferrugineo-tomentellous-furfuraceous, glabrate. Petioles 7–12 mm long. Leaf blades to about 15 cm long, 4.5 cm wide; elliptic or oblong, short acuminate, at base acute, subcuneate; subcoriaceous; upper surface flat to channeled; margins entire; both surfaces finely reticulate; glands numerous, small, round, slightly pustular especially beneath, slightly more crowded toward margins; undersurface slightly paler; midrib slightly elevated beneath; secondary veins about 8–10 pairs, rather slender, with shorter intercalated slender intersecondaries, incurved distally (2–3 mm from margin); reticulations fine, evident to somewhat obscure. Inflorescences lateral, bipinnate, suberect, glabrous, from half as long to longer than the average leaf, up to 14 cm long, with about 4–6 side branches, these racemose, along the distal half with rather numerous (6–15) well-spaced flowers; bracts small, soon caducous; pedicels slender, about 2–3 mm long, very minutely and sparsely puberulent; flowers in bud subglobose-ovoid, 3–3.5 mm long, white. Calyx lobes about 1 mm long, ovate acute, sparsely glandular, dorsally toward base rather sparsely hirtellous, margins minutely ciliolate. Corolla lobes shortly coalescent at base, about 3 mm long, ovate or subovate, entire, glabrous on both surfaces, rather sparsely glandular with small, round, usually translucent glands; veins 5, laterals often forked. Stamens about 2.2–2.3 mm long, filaments short, 0.5 mm, glabrous; anthers ovate-deltate, subacuminate, nonseptate, dorsally rather obscurely glandular. Ovary hemiovoid, about 0.75 mm long, subabruptly to rather gradually produced into a long cylindric style 1.5–1.9 mm long. Stigma minutely capitate. Placenta 0.5 mm high, minutely apiculate, ovules 3 or 4 in one series (one ovule sometimes set lower than the rest). Fruits globose, marmorate, glandular, 3–5 mm diam.

DISTRIBUTION: Philippines, endemic. LUZON: Benguet; along rivulets in pinelands near Baguio, June 1904, *Elmer 6493* (US! lectotype); March 1907, *Elmer 8561* (WRSL!). Benguet, May 1911, *Merrill 865, 871* (WRSL!). Bontoc, April 1910, *Vanoverbergh 436* (P!); May 1913, *Vanoverbergh 3123* (P!). Isabela, Mt. Moises, April 1926, *Clemens 16971* (UC!); same loc., March 1926, *BS 47262 Ramos & Edano* (UC!); Albay; Rizal, Balacbac, May 1916, *Loher 13088* (UC!); Mt. Mayon, May–June 1953, *PNH 18298 Mendoza* (L!). Camarines; Mt. Isarog, June 1947, *PNH 2825 Convocar* (L!). MINDORO: Mt. Halcon, *Merrill 4444* (syntype of *A. geissanthoides*) *Merrill 4447* (syntype of *A. geissanthoides*); Nov. 1906, *Merrill 6138* (US, lectotype of *A. glauca*). Mt. Halcon, March 1922, *BS 40569 Ramos & Edano* (L!). Pinamalayan, June 1922, *BS 40961 Ramos & Edano* (L!). NEGROS OCCIDENTAL: Mt. Canlaon, 3400 ft., 8 April 1954, *PNH 21974 Edano* (PNH!).

HABITAT: "In damp shaded ravines and in the mossy forest, alt. 1200 to 1600 meters" (Merrill).

NOTES: 1. Merrill cited some additional specimens that I have not found; he included *Elmer 16448*, which is excluded here.

2. Merrill cited his own collection *865* from Benguet as *Discocalyx philippinensis* (A. DC.) Mez but clearly it belongs here; it has bisexual flowers and 4 ovules.

3. After the description of *A. geissanthoides* Mez gave an indication that he tentatively favored the establishment of a section for that species and its near relatives, commenting (1920) as follows: "Approaches *A. elmeri* Mez and together with that species and the following one (i.e. *A. glauca*) within subg. *Tinus* forms a particular section of a few species with simple racemose or paniculate-racemose inflorescences." This indication corresponds perfectly with the subgenus here recognized and named subg. *Scherantha*. It has, however, nothing to do with the true subg. *Tinus* of *Ardisia*.

2. ***Ardisia fragrans*** Elm

Figure 2

Leafl. Philipp. Bot. 2 (1910), 664; Merrill, Enum. Philipp. Fl. Pl. 3 (1923), 258.—Type: *Elmer 11647* (US, lectotype; L, WRSL, isolectotype).

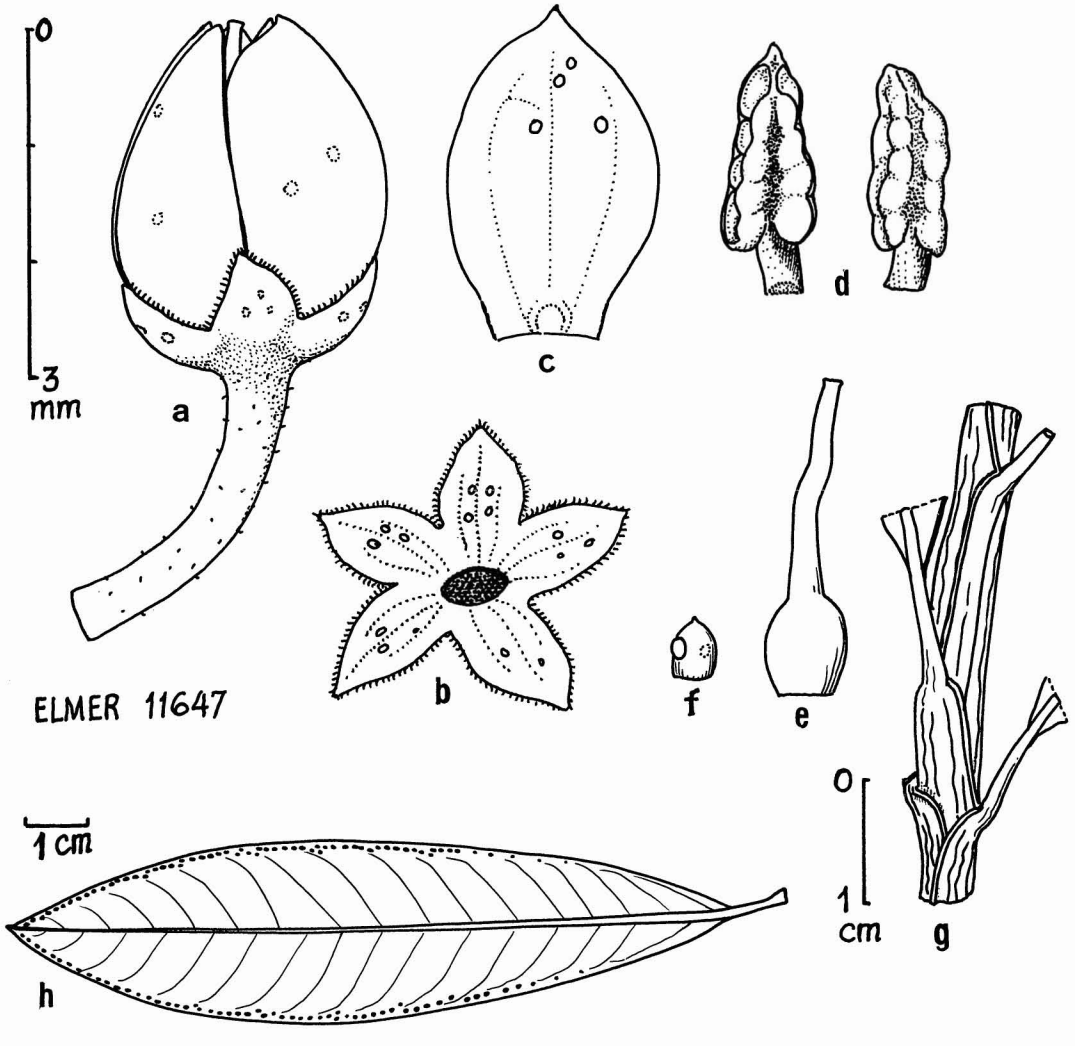


FIGURE 2. *Ardisia fragrans* Elm. a, Flower in profile; b, calyx; c, corolla lobe, interior; d, stamens, ventral view (left) and dorsal view (right); e, ovary and style; f, placenta, ovules 2; g, portion of young stem with petioles; h, leaf. (From *Elmer 11647* [type].)

A tree about 9 m high, trunk to 20 cm diam., few-branched, with many branchlets near the end of the main branches, ascending or divaricate, gussetted at base. Wood white, but reddish toward the center, soft. Bark rather smooth, brown or yellowish gray on the branches, glabrous. Leaves scattered distally on the branchlets, ascending, somewhat channeled and glossy dark green ventrally, glabrous, coriaceous. Petioles glabrous, 15 mm long. Blades narrowly oblong or lanceolate, 10 cm long or more, 3 cm wide, paler beneath, apex acute or acuminate, base cuneate, margins entire; midrib raised beneath; lateral veins about 15 pairs, slender; reticulations scarcely visible; glands somewhat manifest along the margins. Inflorescence lateral from upper axils, about 10 cm long, glabrous,

bipinnate, axes pale green, somewhat angular, curved ascending; pedicels about 3 mm long, subtended by small acuminate soon deciduous bracts. Flower about 3 mm long, ovoid-subglobose in bud; calyx with ovate acute lobes scarcely 1 mm long, sparsely (3- or 4-) glandular, glabrous but the calyx at base and the pedicel minutely and sparsely puberulent with scattered trichomes. Corolla lobes white, ovate, 3–3.75 mm long, 2.5 mm wide, glabrous on both sides, very sparsely glandular, with 3 obscure veins. Stamens 2.2 mm long, filaments 0.5 mm long, anthers locellate, each theca with 4 or 5 locelli; connective dorsally darker but without distinct glands. Ovary ovoid-hemiovoid, almost 1 mm high, glabrous; style 1.75 mm long, slightly attenuate; stigma minutely capitate. Placenta 0.5 mm high, minutely apiculate; ovules 2–4 in one row. Fruit oblate-globose, about 8 mm diam., almost black.

DISTRIBUTION: Philippines, endemic. MINDANAO: Davao; Mt. Apo, forest at 4000 ft (1312 m) between Todaya and Talon, Sept. 1909, *Elmer 11647* (US! lectotype; L! WRSL! isolectotype).

HABITAT: In montane forest at about 1200–1400 m altitude.

NOTES: 1. In this species the anthers have only 4 or 5 locelli per theca, fewer than other species of this group. Also noteworthy is the presence of slender costulae running down from each margin of the petiole base on the branchlets.

2. Elmer remarked that the flowers were "sweetly fragrant" and that the vernacular name in Bagobo is "*catigpo-tigpo*." In fact this vernacular name (and variants of it) is widely used in the Philippines for various species of *Ardisia* as well.

3. ***Ardisia ilocana*** Merr.
Figure 3
Philipp. J. Sci. Bot. 14 (1919), 443; Merrill, Enum. Philipp. Fl. Pl. 3 (1923), 259.—Type: *BS 32982 Ramos* (US, lectotype).

Erect shrub with branchlets and inflorescences distinctly castaneous-pubescent, otherwise glabrous. Indument of stalked several-celled glandular trichomes, the apex a single cell or more often a pair of cells, these sometimes slightly separated; these, and rarely also the cell immediately below, with dark contents; cilia of sepal margins similar but the stalk 1–2-celled. Petioles pubescent when young but soon glabrate, 5–10 mm long. Leaf blades oblong, 6–12 cm long, 2–3.5 cm wide, membranous to chartaceous, at apex some-

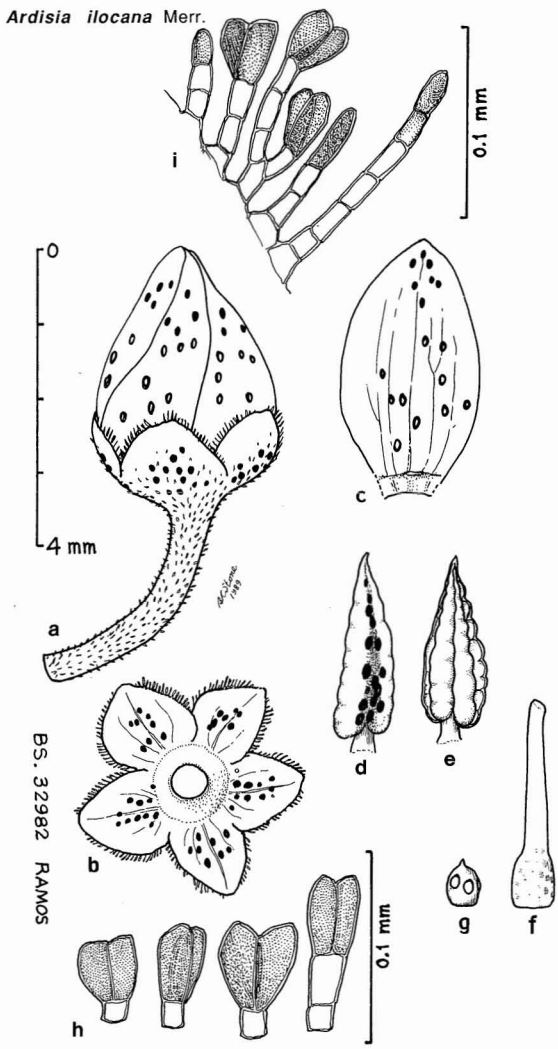


FIGURE 3. *Ardisia ilocana* Merr. a, Flower in profile; b, calyx; c, corolla lobe, interior; d, stamen, dorsal view; e, stamen, ventral view (note locelli); f, ovary and style; g, placenta, ovules 5; h, trichomes from pedicel; i, trichomes from calyx margin. (All from *BS 32982 Ramos* [type].)

what acuminate, at base acute, when dry slightly glossy, somewhat olivaceous, both surfaces glandular-dotted with rather large, uniformly dispersed manifest glands; midrib raised beneath; lateral veins 15–20 pairs, very slender, hardly prominent; reticulations obscure. Inflorescence lateral, paniculate, bipinnate, from axils of present or fallen leaves; primary branches racemose, with well-spaced flowers on pedicels 3–4 mm long. Flowers in bud ovoid subacute, 3–3.5 mm long; pedicels and base of calyx noticeably hirtellous; calyx lobes suborbicular, subacute to obtuse or rounded, sparsely glandular-dotted with small round glands, margins fimbriate-ciliate (cilia to 0.1 mm long); corolla white, the lobes 3.5 mm long, ovate-elliptic, somewhat sparsely glandular, 5-veined, glabrous on both surfaces, very shortly coalescent at base. Stamens nearly 3 mm long, filaments scarcely 0.4 mm long; anthers deltate-lanceolate, distinctly locellate, each theca 8-locellate; connective dorsally clearly glandular with black glands. Ovary narrowly hemiovoid, 0.8 mm long, obscurely glandular; style 2 mm long, slightly attenuate; stigma truncate and slightly discoid. Placenta subovoid, apiculate; ovules 5 in one irregular row.

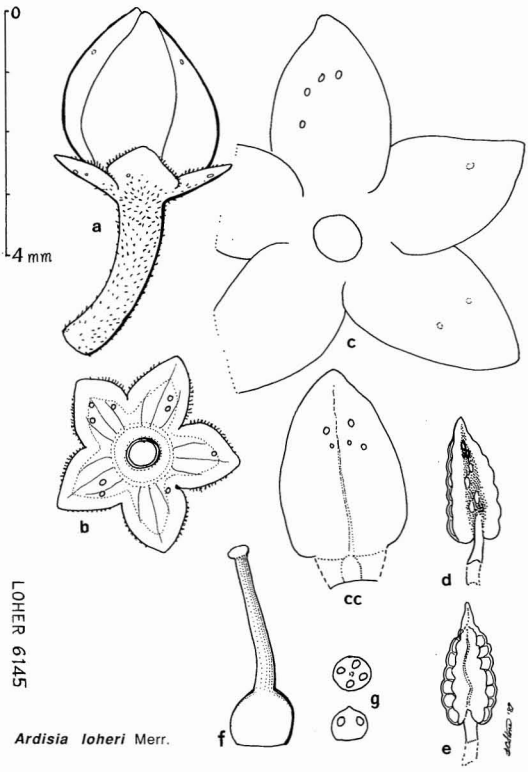


FIGURE 4. *Ardisia loheri* Merr. a, Flower in profile; b, calyx; c, corolla, exterior; cc, corolla lobe, interior; d, stamen, dorsal view; e, stamen, ventral view (note locelli); f, ovary and style; g, top (above) and side views of placenta. (All from *Loher 6145*.)

DISTRIBUTION: Philippines, endemic. LUZON: Ilocos Norte, northernmost part between Bangui and Claveria, 500 m, 12 Aug. 1918, *BS 32982 Ramos* (US! lectotype).

HABITAT: Forests at moderate altitude, about 500 m.

NOTES: 1. Merrill stated that the species is "well characterized by its numerous, relatively large regularly spaced glands, which are distinctly visible to the naked eye on both surfaces of the leaf." He might also have pointed out that the longer, often several-celled, trichomes on the pedicels and the marginal cilia of the sepals are longer than is usual in species of this affinity.

2. Because of the locellate anthers, this species appears closest to *A. racemoso-paniculata, A. samarensis, A. loheri,* and *A. fragrans*. It differs from the first of these in having fewer ovules and more numerous anther locelli, from the second in its smaller sepals and shorter petioles, and from the last two in its longer trichomes.

4. ***Ardisia loheri*** Merr.
Figure 4

Philipp. J. Sci. Bot. 12 (1917), 152; Merrill, Enum. Philipp. Fl. Pl. 3 (1923), 259.—Type: *Loher 6146* (US! lectotype).

Small tree about 5 m tall; young branchlets and inflorescences sparsely brown-furfuraceous-tomentellous, otherwise glabrous. Branches terete, pale brownish, the younger ones more or less angular. Leaves scattered, firmly chartaceous, drying pale olivaceous. Petioles 15–30 mm long. Leaf blades oblong to oblong-elliptic, subequally narrowed to the rather distinctly acuminate apex and the acute

base, 15–22 cm long, 3–5.6 cm wide, margins entire; both surfaces with evident glands especially toward margins; lateral veins about 20–25 pairs, prominent beneath, the intersecondaries and reticulations distinct. Inflorescences lateral in the upper axils, bipinnate, pedunculate, rather large, up to 18 cm long, with side branches to 6 cm long, flowers numerous, racemose, scattered; pedicels about 3 mm long, sparsely short-hirtellous. Flowers (late bud) ovoid-subglobose, apex obtuse, just 3 mm long; calyx lobes about 1 mm long, broadly ovate, acutish, very sparsely glandular (about 1–3 glands per lobe), margins minutely ciliolate; corolla lobes ovate, about 3 mm long, very sparsely glandular, glabrous, the veins obscure or the midvein weakly evident; stamens 2.5 mm long, filaments 0.5 mm long, anthers distinctly locellate, each theca with 8 locelli, connective dorsally darker with a few glands. Ovary hemiovoid, 1 mm high; style 2.5 mm long; stigma capitate. Placenta 0.5 mm high, minutely apiculate; ovules 4 in one row.

DISTRIBUTION: Philippines, endemic. LUZON: Rizal; Montalban, Feb. 1906, *Loher 6145* (US!). Oriud, Feb. 1906, *Loher 6146* (US! lectotype). Laguna; Mt. Makiling, 27 Oct. 1912, *Baker 368* (PNH). Same loc., June–July 1917, *Elmer 17523* (US!), *17809* (P!). Same loc., 12 Mar. 1949, *PNH 9577 Tadena* (L! PNH! US!). NEGROS OCCIDENTAL: Mt. Canlaon, 1800 m, 10 Apr. 1954, *PNH 22014 Edano* (L!). MINDANAO: Bukidnon; Aug. 1912, *BS 15685 Fenix* (P!). Locality unknown, *Loher 6141* (US!).

HABITAT: Primary forests at moderate altitude and ascending to 1200 m.

NOTES: 1. An *Elmer* collection (*17523*) was distributed with the unpublished name "*Discocalyx makilingensis* Elm."

2. Merrill indicated a "manifest alliance" of this species with *Ardisia fragrans*, from which the present species is distinguished by its thinner, larger, and multiveined leaves. This distinction still appears to hold, with an additional difference in the number of anther locelli, 8 per theca in the present species, 4 per theca in *A. fragrans*. In addition, the latter has shorter petioles and possibly smaller inflorescences.

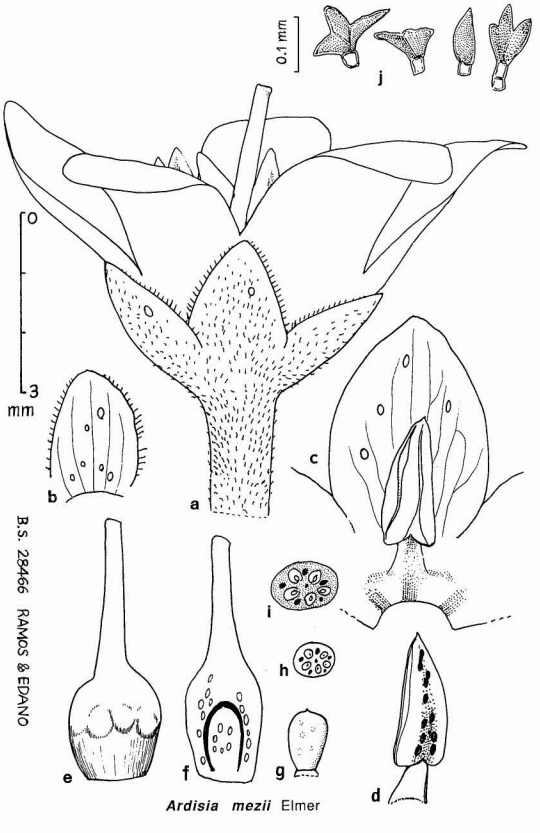


FIGURE 5. *Ardisia mezii* Elm. a, Flower in profile; b, calyx lobe; c, corolla lobe with stamen in situ; d, stamen, dorsal view; e, ovary with style; f, ovary in longitudinal section showing placenta at base and ovarian internal glands; g, detached placenta; h–i, placenta in transverse section views, both showing 5 ovules and intervening glands: h, at anthesis; i, past anthesis; j, trichomes from calyx. (From *BS 28466*.)

5. ***Ardisia mezii*** Elm.
Figure 5

Leafl. Philipp. Bot. 2 (1908), 440; Merrill, Enum. Philipp. Fl. Pl. 3 (1923), 260.—Type: *Elmer 7887* (not found).

Shrub about 3 m high, trunk and branches with brownish bark. Innovations extremely finely tomentellous-lepidote, soon glabrate. Leaves scattered, glossy above in life, much paler beneath, drying reddish brown. Petioles robust, 10–20 mm long. Blades perfectly gla-

brous, lanceolate to oblong or oblanceolate, 10–20 cm long, 4–7 cm wide, entire, the apex acute or obtuse; midrib impressed above, raised beneath; lateral veins about 10–15 pairs, very fine and inconspicuous, curved and distally prolonged (hence giving the impression of a second intramarginal nerve); reticulations very fine; lower surface minutely dotted with ferruginous scales. Inflorescences axillary and subterminal, bipinnate, to 5–10 cm long, formed of up to 9 rather rigid racemose lateral branches about 2–3 cm long, each bearing about 5–7 flowers well spaced on outer half, the axes ferruginous, almost glabrous but the pedicels minutely and rather sparsely tomentellous-lepidote. Pedicels about 4 mm long. Flowers pendulous; calyx minutely tomentellous, the lobes ovate, 2 mm long, sparsely glandular, margins ciliolate; corolla with short basal tube scarcely 1 mm long, lobes 4 mm long, 3 mm wide, entire, very sparsely glandular, glabrous; stamens 3 mm long, the filament 0.7 mm long, anther narrowly deltate-ovate subacuminate, 2.5 mm long, connective dorsally distinctly glandular with black glands . Ovary hemiovoid, 1. 5 mm high; style 2.5 mm long; stigma truncate. Placenta 1 mm high; ovules 5 in one row. Fruit globose, 5 mm diam.

DISTRIBUTION: Philippines, endemic. BABUYANES IS.: Calayan I., June 1917, *FB 26644 Velasco* (US!). LUZON: Tayabas, Lucban, Mt. Banahao, 2400 ft (788 m), May 1907, *Elmer 7887* (not seen) . Same loc., May 1907, *Elmer 9534* (WRSL!). Mt. Banahao, May 1917, *FB 27974 Ocampo* (P!). Tayabas, Mt. Binuang, May 1917, *BS 28466 Ramos & Edano* (US!). Laguna; Feb.–Apr. 1917, *FB 26777 Mabesa* (US!). Bahican River, Sept. 1912, *BS 1323 Ramos* (L!). Sorsogon; July–Aug. 1917, *BS 23495 Ramos* (US!). Mt. Bulusan, 1947, *PNH 3617 Sulit* (L!). Loc.? *Merrill Phil. Pl. 1323* (P!). MINDANAO: Bukidnon, Mt. Dumalucpihan, June 1920, *BS 38977 Ramos & Edano* (P!).

HABITAT: In primary forest between 700 and 1200 m altitude.

NOTES: 1. Merrill cited some other collections that I have not seen, including *Whitford 936* from Mt. Banahao (the type locality), fruiting in Oct. 1904; *Baker 3011; FB 20362 Tabat; BS 20495 Ramos*.

2. This is a well-marked species notable for its relatively long petioles, rather large blades, and obscure venation. Moreover the flowers are comparatively large. The anthers are not locellate. The inflorescences, though described as glabrous by Elmer, are actually possessed of an exceedingly minute, rather scattered pubescence as described above (tomentellous-lepidote); the trichomes are incipient scales, with a stalk cell and 1–3 ferruginous cap cells usually radially arranged; rarely the stalk has two cells.

6. ***Ardisia nigro-maculata*** Merr.
Figure 6

Philipp. J. Sci. Bot:. 13 (1918), 49; Merrill, Enum. Philipp. Fl. Pl. 3 (1923), 260.—Type: *BS 28478 Ramos & Edano* (US! lectotype).

Glabrous shrub about 3 m tall, with rather stout brown branches 5–7 mm diam. with large petiolar scars. Leaves numerous and rather crowded, chartaceous to subcoriaceous, glossy. Petioles mostly 10–15 mm long, flattish above. Blades oblong-elliptic to oblong-obovate, 5–8 cm long, 2.5–4 cm wide, subequally narrowed to acuminate apex and acute base, entire, conspicuously glandular-dotted with black, immersed, roundish to oval-oblong glands (near or on the petiole, almost oblong-linear); undersurface with numerous scattered, appressed, ferruginous scales; midrib slightly impressed above, raised beneath; main lateral veins about 8–10 pairs, slightly raised beneath, moderately evident, curved upward, anastomosing; intersecondary veins often 2 or 3 between the main veins; reticulations rather evident. Inflorescences axillary, bipinnate, pedunculate, from half as long to about as long as the leaves, side branches racemose, 2.5 cm long or less, with about 6–10 flowers along the distal half. Pedicels scarcely 2 mm long, glabrous or very minutely and sparsely lepidote. Flowers in bud ovoid, 3 mm long; calyx lobes ovate, 1 mm long, ciliolate, sparsely glandular; corolla white, the lobes ovate, 3–3.5 mm long, shortly

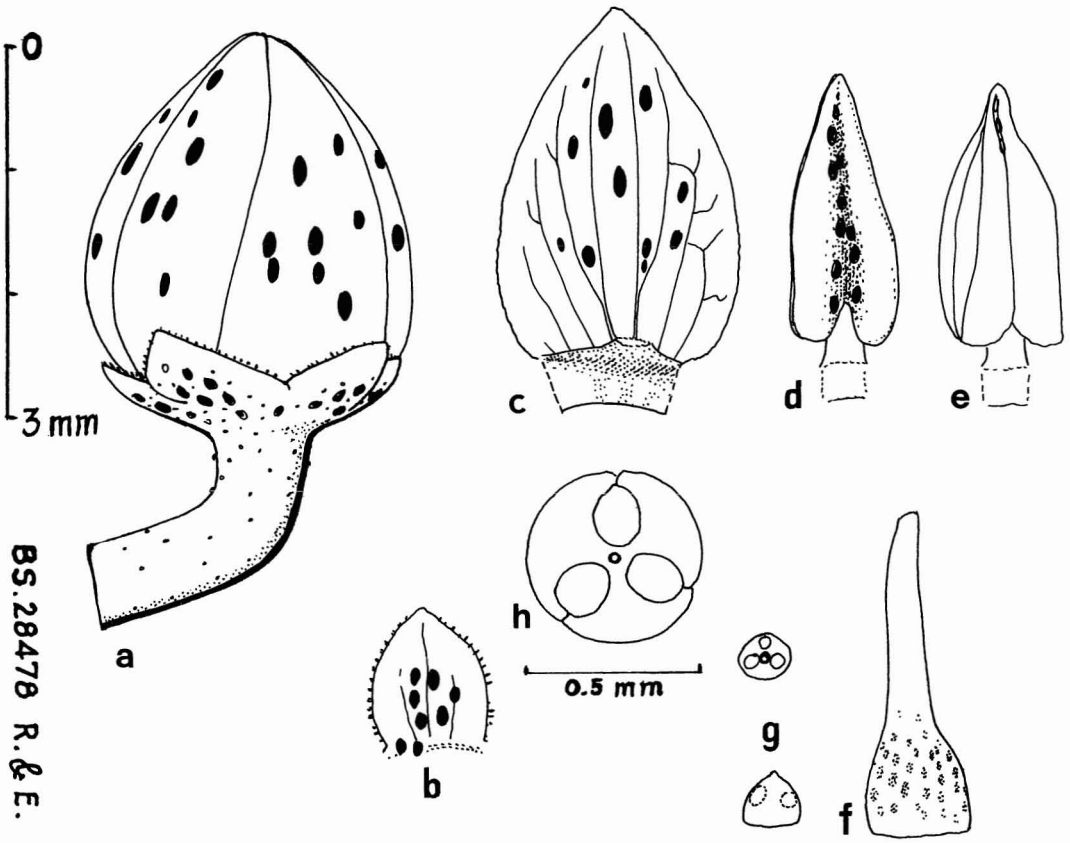


FIGURE 6. *Ardisia nigro-maculata* Merr. a, Flower in profile; b, calyx lobe; c, corolla lobe, interior; d, stamen, dorsal view; e, stamen, ventral view; f, ovary and style; g, placenta in profile (below), and in transverse section (above); h, placenta in transverse section (enlarged). (From *BS 28478 Ramos & Edano* [type].)

coalescent-tubular at base, entire, glabrous, with about 5 veins (veins sometimes rebranched); glandular, with several rather large black oval immersed glands; stamens 2.5 mm long, filaments scarcely 0.5 mm long, anthers narrowly ovate-deltate, subacuminate, dorsally with a double row of small but conspicuous black glands; anthers not locellate. Ovary hemiovoid, almost 1 mm high, obscurely glandular; style about 2 mm long; stigma truncate. Placenta almost 0.5 mm high, with about 3 ovules.

DISTRIBUTION: Philippines, endemic. LUZON: Tayabas; Mt. Binuang, 1000 m, 7 May 1917, *BS 28478 Ramos & Edano* (US! lectotype; L! isotype). Nueva Vizcaya, Mt. Alzapan, May–June 1925, *BS 45641 Ramos & Edano* (P!). Camarines Sur; Mt. Isarog, June 1947, *PNH 2862 Convocar* (L!). PANAY: Capiz; Mt. Madiaas, Apr.–May 1917, *BS 30721 Ramos & Edano* (US!). NEGROS ORIENTAL: Mt. Malbog, June 1948, *PNH 7261 Edano* (L!). NEGROS OCCIDENTAL: Mt. Canlaon, Apr. 1954, *PNH 21999 Edano* (L!).

HABITAT: Montane or submontane forests at about 1000 m altitude.

NOTES: 1. This distinctive species can be recognized by the prominent black glands in

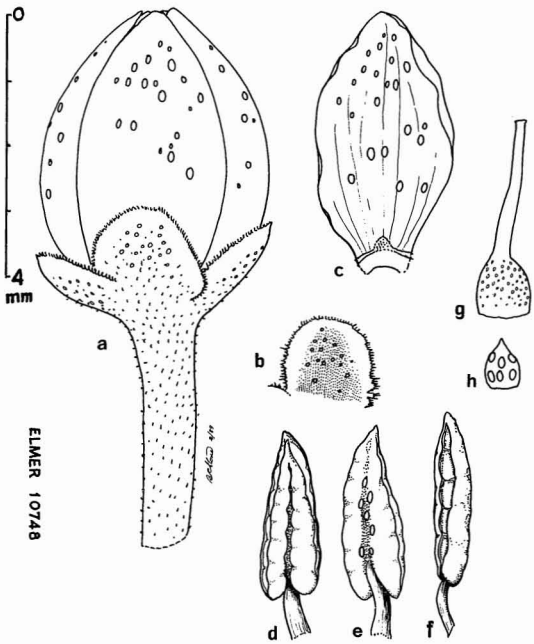


FIGURE 7. *Ardisia racemoso-panniculata* Mez. a, Flower in profile; b, calyx lobe; c, corolla lobe, interior; d, stamen, ventral view; e, stamen, dorsal view; f, stamen, side view showlng locelli; g, ovary and style; h, placenta, with 9–12 ovules. (From *Elmer 10748*.)

both leaves and flowers, the somewhat short and mostly obovate-subcaudate leaves with well-developed petioles, the small flowers, and the nonlocellate anthers.

2. Merrill misprinted the type number in the Enumeration as "28978." He also cited *BS 28659*, which I have not seen.

7. ***Ardisia racemoso-panniculata*** Mez
Figure 7

Philipp. J. Sci. 1 (1906*a*) Suppl., 273; Mez, Feddes, Repert. Specierum Nov. Regni Veg. 3 (1906*b*), 99; Merrill, Philipp. J. Sci. Bot. 2 (1907), 296; Merrill, Enum. Philipp. Fl. Pl. 3 (1923), 262; Elmer, Leafl. Philipp. Bot. 2 (1910), 661.—Type: *Copeland 1187* (not seen).

Shrub 4–7 m tall, with slender terete branchlets; innovations minutely lepidote. Leaves glabrous. Petioles about 15 mm long. Blades elliptic, 15 cm long, 4.5 cm wide, apex narrowed, gradually acuminate, base similarly narrowed; margins entire; both surfaces with loose reticulation, glands obscure; lateral veins prominent beneath, distally upcurved, prolonged, subparallel; undersurface pale. Inflorescence axillary, glabrous, suberect, about 10 cm long, side branches to 4 cm long, spreading or reflexed, distally fertile with racemosely arranged flowers; axes red, subangulate; bracts deciduous. Flowers fragrant, in bud broadly ovoid, 4–4.5 mm long; calyx lobes 1.5–1.7 mm long, broadly rounded, minutely glandular, dorsally very sparsely tomentellous, margins ciliate; corolla whitish to pinkish, lobes very shortly coalescent at base, ovate-elliptic, 4 mm long, rather abundantly glandular, with about 7 veins, both surfaces glabrous. Stamens with filaments 0.8 mm long, anthers 2.7 mm long, slender deltate-subacuminate, locellate, each theca with 5 or 6 locelli; connective dorsally subsparsely glandular. Ovary 1 mm high, hemiovoid, obscurely glandular; style just over 2 mm long; stigma truncate and minutely capitate-discoid. Placenta apiculate, 0.75 mm high, ovules 9–12 in two rows.

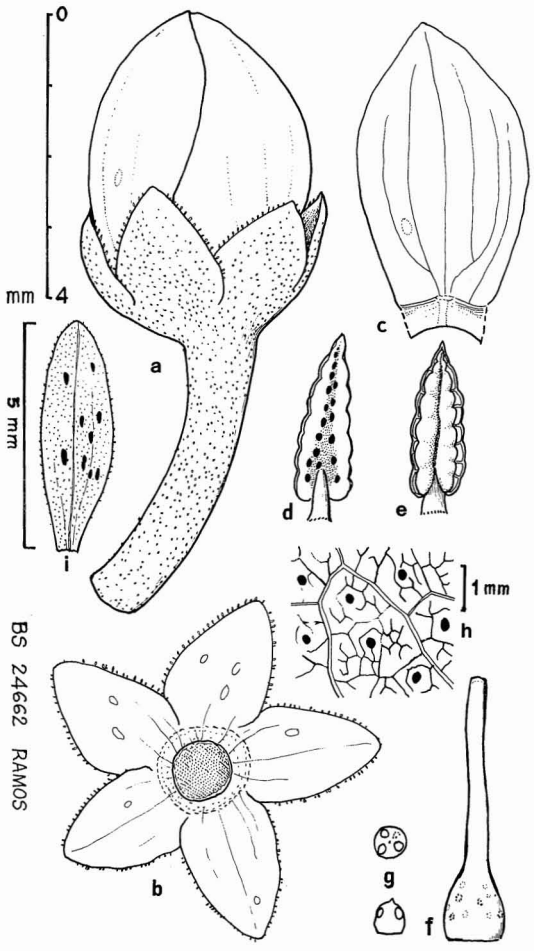
DISTRIBUTION: Philippines, endemic. MINDANAO: Davao; Mt. Apo, 1700 m, Apr. 1904. *Copeland 1187* (type collection, isotypes not seen). Mt. Apo, 4000 ft (1312 m), May 1909, *Elmer 10612* (L!); *10748* (L!).

HABITAT: In primary forests at 1300–1600 m altitude.

NOTES: 1. The relatively large flowers, blunt or rounded calyx lobes, locellate anthers (the thecae with 5 or 6 locelli), and the relatively numerous ovules (9–12 per placenta) are the outstanding characters of this species, which though well characterized is still imperfectly known. Lectotype choice is deferred.

2. Although the spelling of the epithet (with two *n*'s in the name) is unusual, it cannot be proved to be an orthographic error so is retained.

8. ***Ardisia samarensis*** Merr.
Figure 8



Ardisia samarensis Merr.

FIGURE 8. *Ardisia samarensis* Merr. a, Flower in profile; b, calyx; c, corolla lobe, interior; d, stamen, dorsal view; e, stamen, ventral view (note locelli); f, ovary and style; g, placenta in side view (below), top view (above) (ovules 3 or 4); h, small area of leaf undersurface showing venation and distribution of immersed glands; i, inflorescence bract. (From *BS 24462 Ramos* [type].)

Philipp. J. Sci. Bot. 12 (1917), 151; Merrill, Enum. Philipp. Fl. Pl. 3 (1923), 263.—Type: *BS 24462 Ramos* (US! lectotype).

Shrub about 2 m tall, glabrous except the very sparsely furfuraceous-lepidote inflorescences. Branches brownish, subterete, the branchlets slightly angulate when dry. Leaves glossy green-olivaceous when dry, chartaceous. Petioles 15–20 mm long. Blades lanceolate to oblong-lanceolate, 17–20 cm long, 3–4.5 cm wide, subequally narrowed to clearly acuminate apex and acute base; margin entire; both surfaces glandular, the glands scattered, evident, but more conspicuous nearer the margins; midrib slightly impressed above, raised beneath; lateral nerves about 15 pairs, upcurved, prominent beneath; reticulations distinct on both surfaces. Inflorescences axillary, bipinnate, pedunculate, about 8 cm long, side branches few, spreading, 4 cm long, bracts 4–20 mm long, deciduous; flowers racemosely arranged, on pedicels 2–4 mm long. Flowers ovoid 4–4.5 mm long, the calyx (like the pedicel) minutely subsparsely lepidote, the lobes ovate-deltate, acute to subobtuse, 2 mm long, minutely ciliolate, scarcely or not glandular; corolla glabrous, the lobes 4 mm long, briefly coalescent at base, ovate, with about 5 veins, very sparsely or not glandular; stamens with filaments scarcely 0.5 mm long, anthers 2.5 mm long, narrowly deltate-subacuminate, conspicuously lobulate locellate, each theca with about 8 locelli, connective dorsally gland-dotted. Ovary hemiovoid, 1 mm high, obscurely glandular; style 3 mm long; stigma truncate. Placenta 0.5 mm high, minutely apiculate; ovules 3 or 4 in one row.

DISTRIBUTION: Philippines, endemic. SAMAR: Catubig River, Pinipisakan, 21 Mar. 1916, *BS 24462 Ramos* (US! lectotype; L! isolectotype). BOHOL: Aug.–Oct. 1923, *BS 43374 Ramos* (US!; 2 sheets).

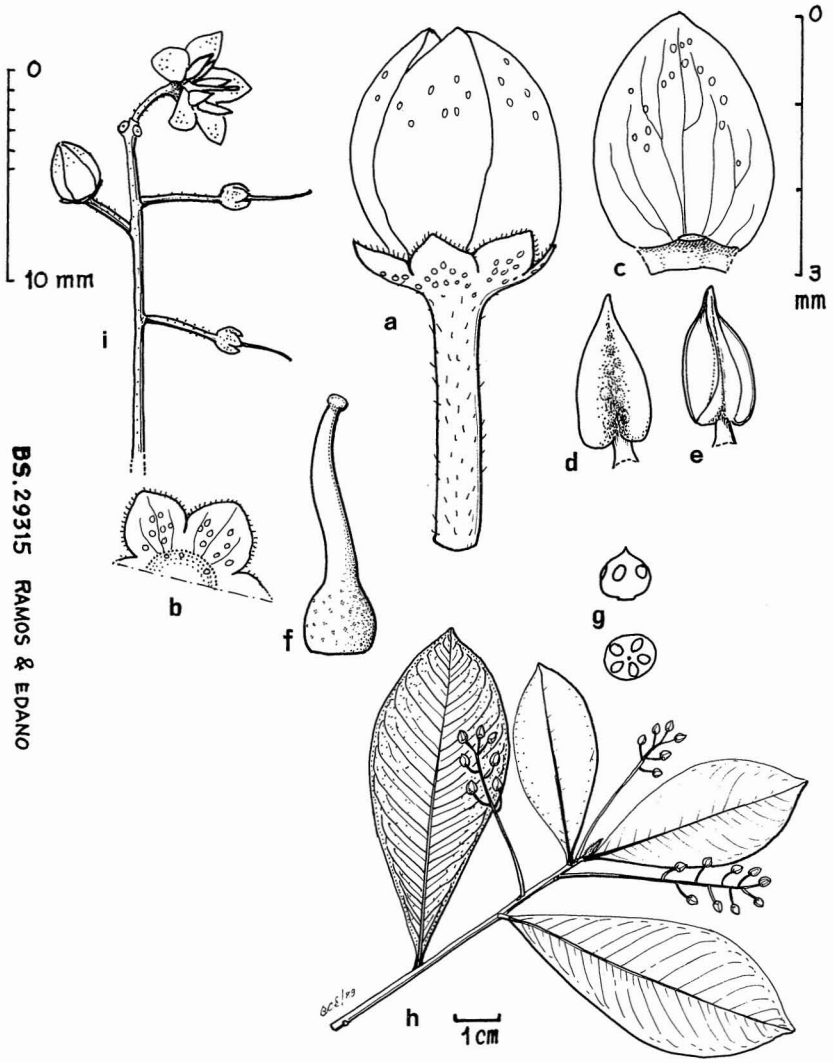
HABITAT: In damp primary forests at low altitude.

NOTES: 1. Oddly, Merrill failed to mention the locellate anthers that are quite conspicuously lobulate.

2. This species is well characterized by its narrow elongate leaves, relatively large flowers, reduced number of ovules, and clearly locellate anthers with about 8 locelli in each theca.

9. ***Ardisia stichantha*** B. C. Stone, n. sp.
Figure 9

Arbuscula; ramis ad 6 mm diam., cortice



Ardisia stichantha Stone

FIGURE 9. *Ardisia stichantha* B. C. Stone. a, Flower in profile; b, part of calyx; c, corolla lobe, interior; d, stamen, dorsal view; e, stamen, ventral view; f, ovary and style; g, placenta in side view (above) and top view (below); h, branchlet with leaves and simple racemes; i, distal part of raceme, enlarged. (From *BS 29315 Ramos & Edano* [type].)

griseo; ramulis foliatis 1–2 mm diam., atrioribus, glabris; foliis pro genere modice parvulis, obovatis, tenuicoriaceis, siccite brunneis, brevissime petiolatis, petiolis 1–2 (–3) mm longis; laminis usque ad 7 cm longis, 3 cm latis, subcuspidatis, integerrimis, plurinervatis, glabris, infra minutissime lepidotis, atroglandulosis, glandulis numerosis leviter pustulatis dissitis marginem versus satis crebrioribus pictis; costa supra leviter impresso, infra elevato; venis lateralibus circiter 15-paribus adscendentibus cum secundariis quasiaequalibus brevioribus sese intercalatis, prominulentibus, reticulationibus minutis satis evidentibus. Inflorescentia axillaris vel pseudoterminalis, simplice racemosis subpaucifloris ad 3–4 cm longis,

pedunculo glabro 10–15 mm longo gracillimo, pedicellis gracillimis bene separatis minutissime paullo hirtellis 3–4 mm longis; floribus 6–9 parvibus. Calyx brevis lobis 0.7 mm longis ovatis minute atropunctatis marginibus ciliolatis; corollae lobis ovatis 3 mm longis utrinque glabris 5-venatis pauciglandulosis; staminibus breve-filamentatis, filamento 0.25 mm longo, anthera 1.5–1.6 mm longo subacuminato dorso obscure glanduloso, thecis indivisis rimose longitudinaliter aperientibus; ovario hemiovoideo 0.7 mm alto, obscure parviglanduloso, stylo sursum attenuato 2 mm longo, stigmate parvicapitato terminato; placenta 0.5 mm alto, minute apiculato, ovulis 4–6 uniseriatis.

Shrub or treelet; branches about 6 mm diam., with gray bark; leafy branchlets 1–2 mm diam., darker, glabrous; leaves rather small for this genus, obovate, thinly leathery,

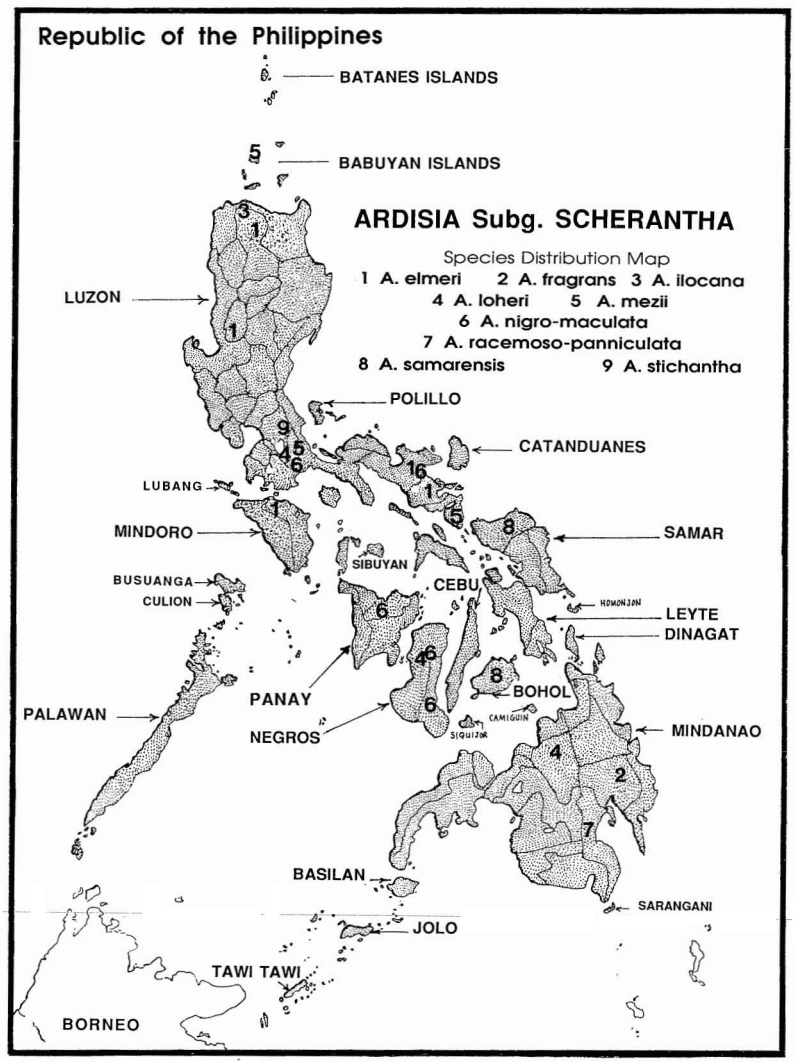


FIGURE 10. Map of the Philippines showing distribution of species of *Ardisia* subgenus *Scherantha*. Distributions are only approximate owing to inexact label data. One number may stand for one or more collections in the same general locality.

brown when dry, very short-petioled, the petiole 1–2 (at most 3) mm long; blades up to 7 cm long and 3 cm wide, apex somewhat cuspidate, margins entire, nerves rather numerous, surfaces glabrous but undersurface very minutely lepidote, glands dark, numerous, slightly raised and a little more crowded toward the margins; midrib above slightly sunken, beneath raised; lateral veins about 15 pairs, ascending, with subequal but shortly intercalated minor veins, all a little raised, the reticulation minute but evident. Inflorescence axillary or pseudoterminal, simple racemose, rather few-flowered, up to 3–4 cm long, glabrous peduncle 10–15 mm long and very slender, pedicels very slender, well separated, very minutely hairy, 3–4 mm long; flowers small, 6–9 together. Calyx lobes 0.7 mm long, ovate, minutely gland-dotted, the margins briefly fringed with ciliae; corolla lobes ovate, 3 mm long, glabrous on both sides, 5-veined, with few glands; stamens short-filamentous (filament 0.25 mm long), anthers 1.5–1.6 mm long, slightly acuminate, obscurely glandular on the back, thecae undivided, dehiscing by slits. Ovary half-ovoid, 0.7 mm tall, obscurely glandular with small glands, tapered style 2 mm long, stigma minutely capitate. Placenta 0.5 mm high, very minutely apiculate, with 4–6 ovules in a single series.

DISTRIBUTION: Philippines, endemic. LUZON: Rizal; Mt. Suson-Dalaga, Aug. 1917, *BS 29315 Ramos & Edano* (US! holotype).

HABITAT: Not indicated on the specimen label.

NOTES: 1. This specimen was originally distributed as *Ardisia mirandae* Merr., a very different plant.

2. This species is obviously related to *A. elmeri* Mez, but differs in having simple rather than bipinnate racemes, 4 to 6 ovules (not 3 or 4), smaller leaves, and shorter inflorescences. The flowers are fundamentally similar, agreeing in the nonlocellate anthers, similar size and abundance of glands, and the minute pubescence of 2–4-celled glandular trichomes on the pedicels.

3. The name "*stichantha*" refers to the sequential arrangement of the flowers.

The distribution map (Figure 10) is only as precise as data permit; most of the collections seen pre-date 1940 and often detailed locality specifications are missing.

INDEX TO COLLECTIONS CITED

Baker, C. F.: 368 = *loheri*; 3011 = *mezii*.

BS (Bureau of Science) series: 1323 = *mezii*; 15685 = *loheri*; 20495 = *mezii*; 23495 = *mezii*; 24462 = *samarensis* (lectotype); 28466 = *mezii*; 28478 = *nigro-maculata* (lectotype); 29315 = *stichantha* (holotype); 30721 = *nigro-maculata*; 32982 = *ilocana* (lectotype); 38977 = *mezii*; 40569 = *elmeri*; 40961 = *elmeri*; 43374 = *samarensis*; 45641 = *nigro-maculata*; 47262 = *elmeri*.

Clemens, M. S.: 16971 = *elmeri*.

Copeland, E. B.: 1187 = *racemoso-panniculata* (type).

Elmer, A. D. E.: 6493 = *elmeri* (type); 7887 = *mezii* (type); 8561 = *elmeri*; 9534 = *mezii*; 10612 = *racemoso-panniculata*; 10748 = *racemoso-panniculata*; 11647 = *fragrans* (lectotype); 17523 = *loheri*.

FB (Forestry Bureau) series: 20362 = *mezii*; 26644 = *mezii*; 26777 = *mezii*; 27974 = *mezii*.

Loher, A.: 6141 = *loheri*; 6145 = *loheri*; 6146 = *loheri* (lectotype); 13088 = *elmeri*.

Merrill, E. D.: 865 = *elmeri*; 871 = *elmeri*; 4444 = *elmeri* (syntype of *A. geissanthoides*); 4447 = *elmeri* (syntype of *A. geissanthoides*); 6138 = *elmeri* (lectotype of *A. glauca*).

Merrill, Philippine Plants (series): 1323 = *mezii*.

PNH (Philippine National Herbarium) series: 2825 = *elmeri*; 2862 = *nigro-maculata*; 3617 = *mezii*; 7261 = *nigro-maculata*; 9577 = *loheri*; 18298 = *elmeri*; 21974 = *elmeri*; 21999 = *nigro-maculata*; 22014 = *loheri*.

Vanoverbergh, Fr. M.: 436 = *elmeri*; 3123 = *elmeri*.

Whitford, H. N.: 936 = *mezii*.

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